

# Montana Occupational Health & Safety Surveillance

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# Disclaimer

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# Introducing...

**MT** Worker Health  
Montana Occupational Health & Safety Surveillance



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# What is Occupational Health & Safety Surveillance?

- Occupational health & safety surveillance:
  - Uses data to track and study work-related injuries, illnesses, and fatalities, and their causes
  - Purpose: Identify and prevent unsafe workplace activities, hazards, and exposures
- Montana Occupational Health & Safety Surveillance program
  - Purpose:

**MT Worker Health**  
Montana Occupational Health & Safety Surveillance

*inform*



Prevention and Safety  
Activities in Montana



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# What data sources do we use?

## Montana Workers' Compensation Claims Data

- housed at Department of Labor & Industry

## U.S. Bureau of Labor Statistics:

- Survey of Occupational Injuries and Illnesses (SOII)
- Census of Fatal Occupational Injuries (CFOI)
- Geographic Profiles of Employment and Unemployment
- Current Population Survey
- Quarterly Census of Employment and Wages (QCEW)

## MT Department of Public Health and Human Services:

- Behavioral Risk Factor Surveillance System (BRFSS)
- Hospital Discharge Data System
- Office of Vital Records
- Central Tumor Registry
- Blood lead levels – electronic lab data

## American Association of Poison Control Centers

## National Academy of Social Insurance (NASI)

## National Council on Compensation Insurance (NCCI)

OHSA Logs  
from Employers



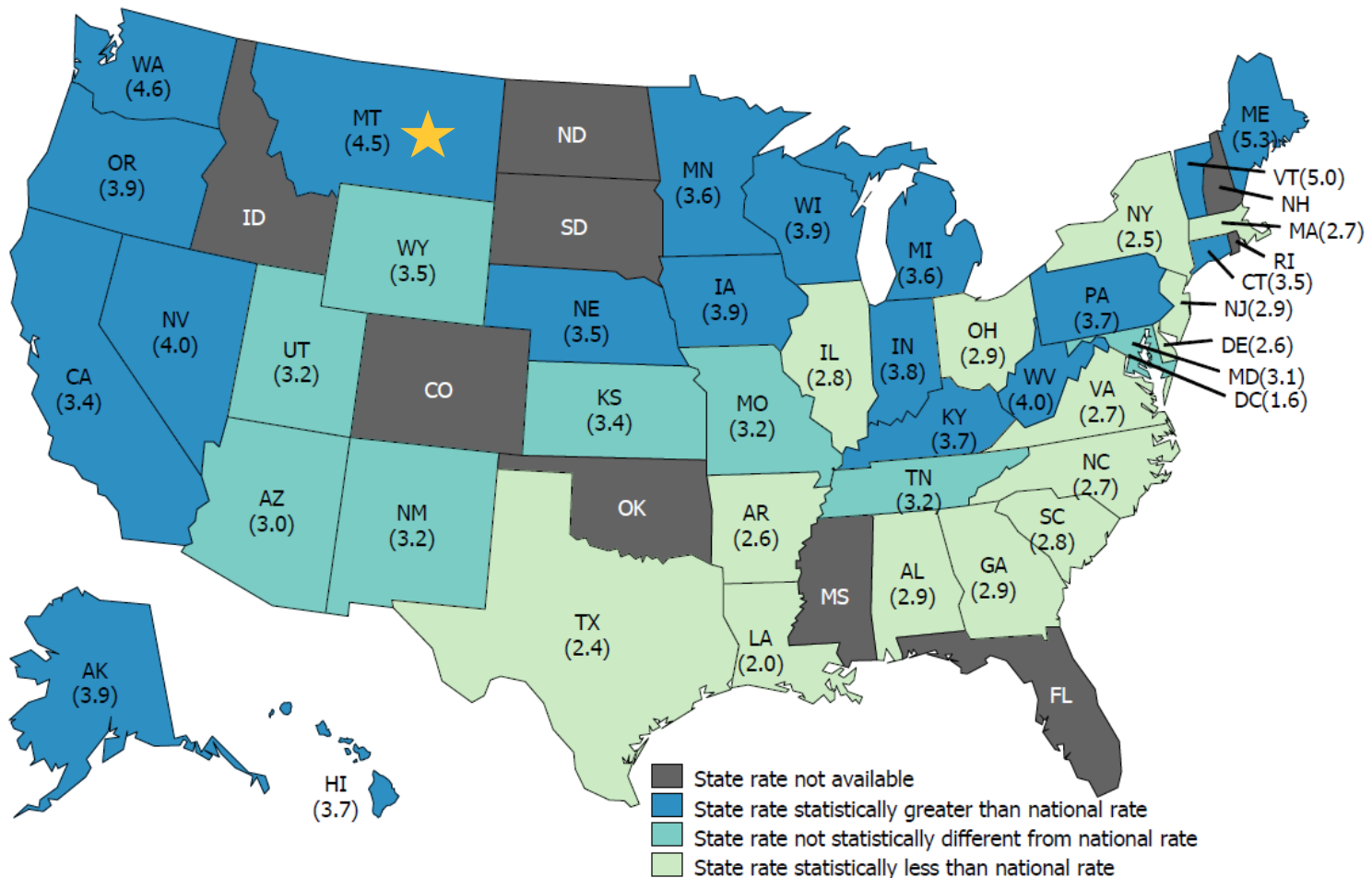
# Lions, Tigers, Incidence Rates...Oh My!

- “Incidence Rate” Definition:
  - Number of new cases of a disease ÷ Number of people at risk to get that disease during a specific period of time
- Example for Occupational Health:
  - “Incidence Rate (MT, private industry, non-fatal work injuries) = 4.5 cases per 100 FTE for 2014”
    - During 2014, there were 4.5 cases of non-fatal work-related injuries for every 100 full-time workers across all private industries in Montana.
- Sometimes, we use the word “incident” to talk about injuries at work (ex: incident reports on OSHA 300 forms, an incident at work), but an incidence rate is not an “incidents” rate.



## National Incidence Rate for non-fatal work-related injuries = 3.2 cases per 100 FTE

State nonfatal occupational injury and illness incidence rates  
compared to the national rate, private industry, 2014



Private industry and public sector estimates are available individually for 41 participating states and for the District of Columbia for 2014. The private industry injury and illness rate was statistically higher in 19 states than the national rate of 3.2 cases per 100 full-time workers, lower in 14 states and in the District of Columbia, and not statistically different in 8 states. Caution should be taken when comparing rates among different states as some differences can be attributed to different industry composition within each state.

# Highlights:

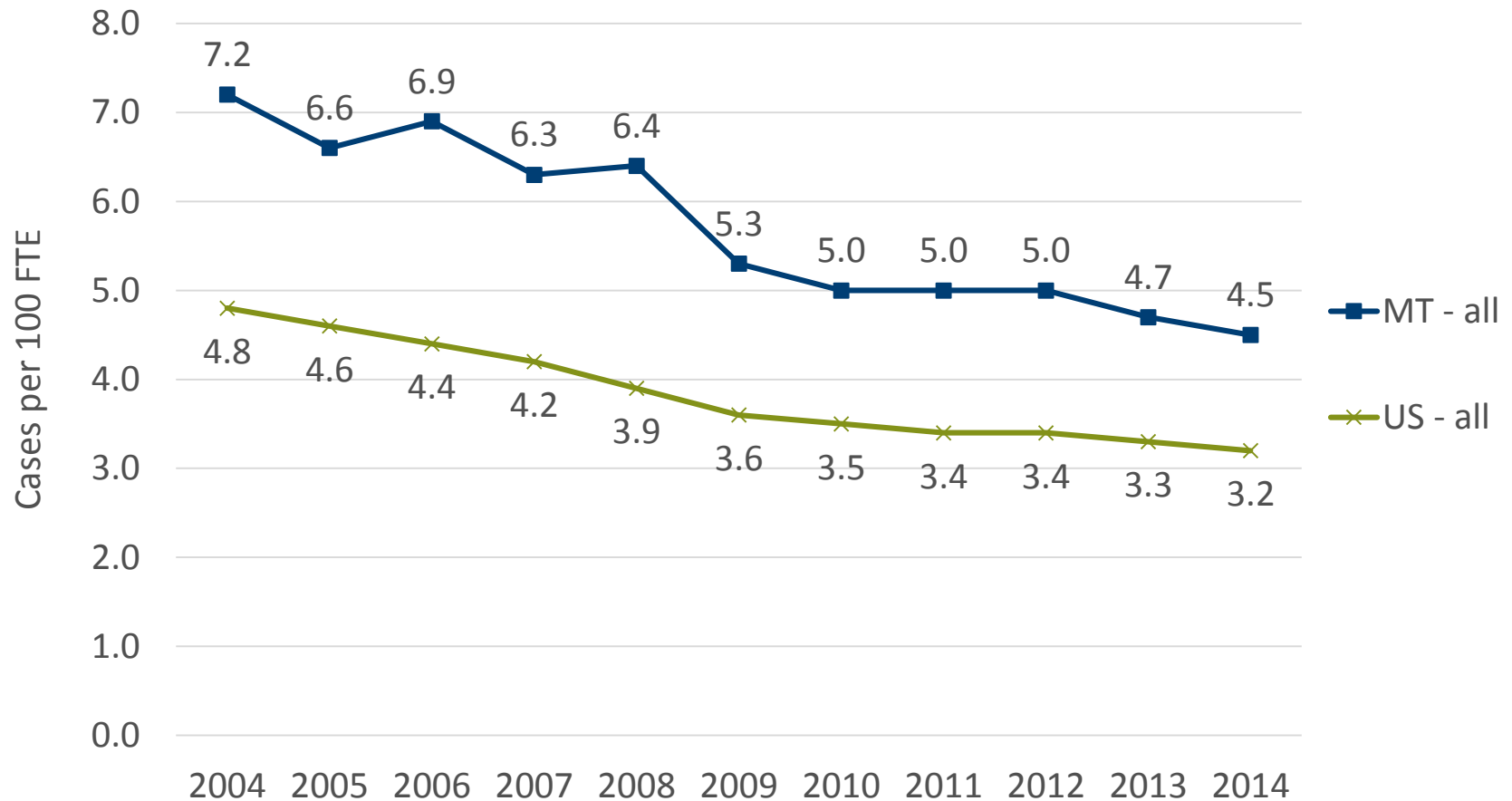
## Occupational Health Indicators: 2004-2014



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**Figure 1.2 – Estimated incidence rates (per 100 FTE) of all cases of non-fatal work-related injuries and illnesses in Montana and the U.S., 2004-2014.**



Source: BLS Survey of Occupational Injuries and Illnesses (SOII) (private industry)

# Montana – A Dangerous Place to Work

- In 2008, Montana had the highest incidence rate for non-fatal injuries and illnesses in private industry in the United States (of 42 surveyed states) (*6.4 cases per 100 FTE*)
- In 2014, Montana had the fourth highest incidence rate for non-fatal work-related injuries and illnesses (*4.5 cases per 100 FTE*)

Source: BLS Survey of Occupational Injuries and Illnesses (SOII) (private industry)

# By Industry and Occupation:

## Non-fatal work-related injuries and illnesses, 2014

### By Industry

(rates of cases per 100 FTE)

- Agriculture, forestry, fishing, hunting (8.8)
- Manufacturing (6.4)
- Education and health services (6.2)
- Accommodation and food services (5.3)
- Construction (5.3)

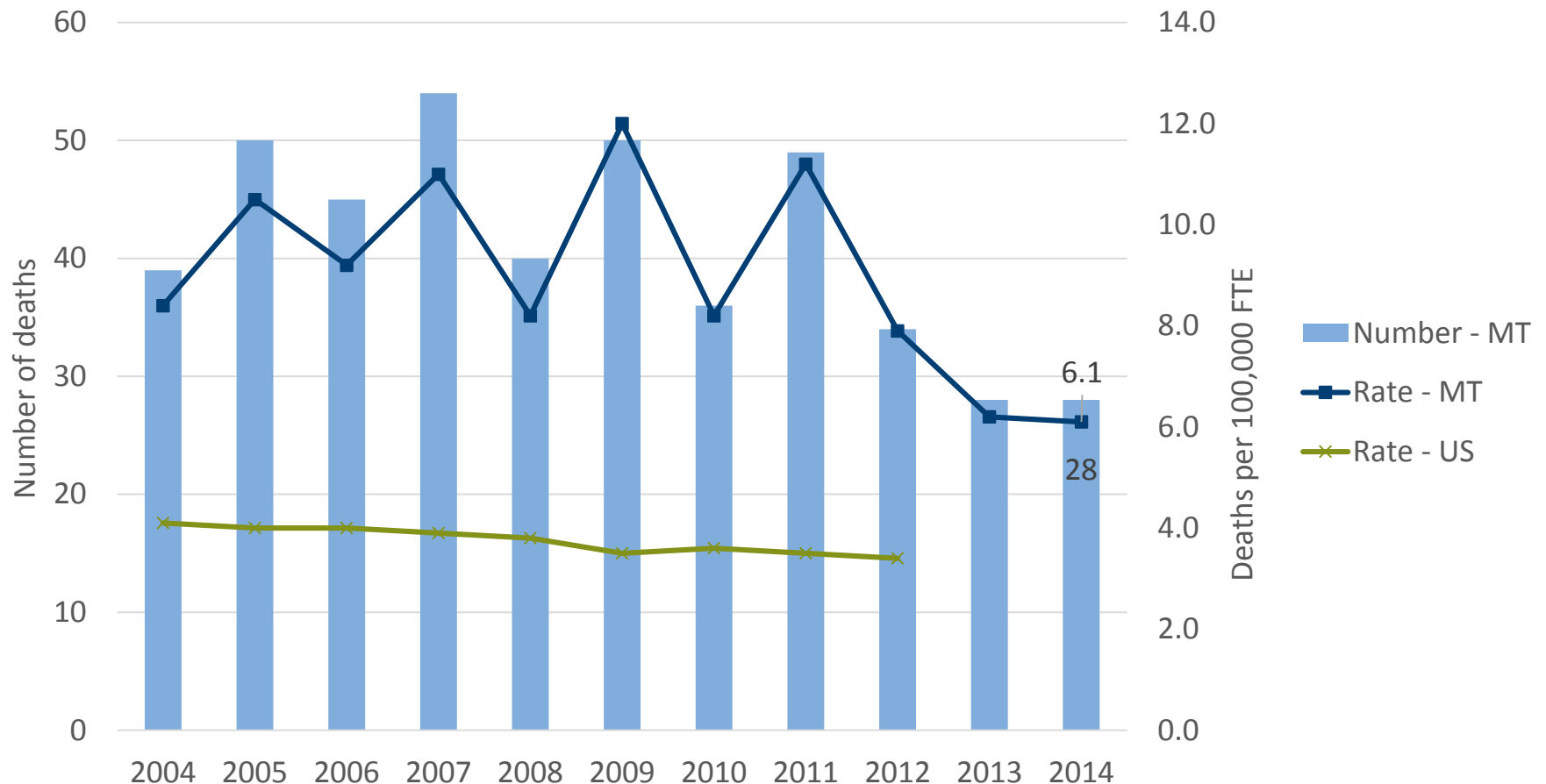
### By Occupation

(counts of cases)

- Nursing assistants (220)
- Retail salespersons (210)
- Heavy & tractor trailer truck drivers (210)
- Construction laborers (160)

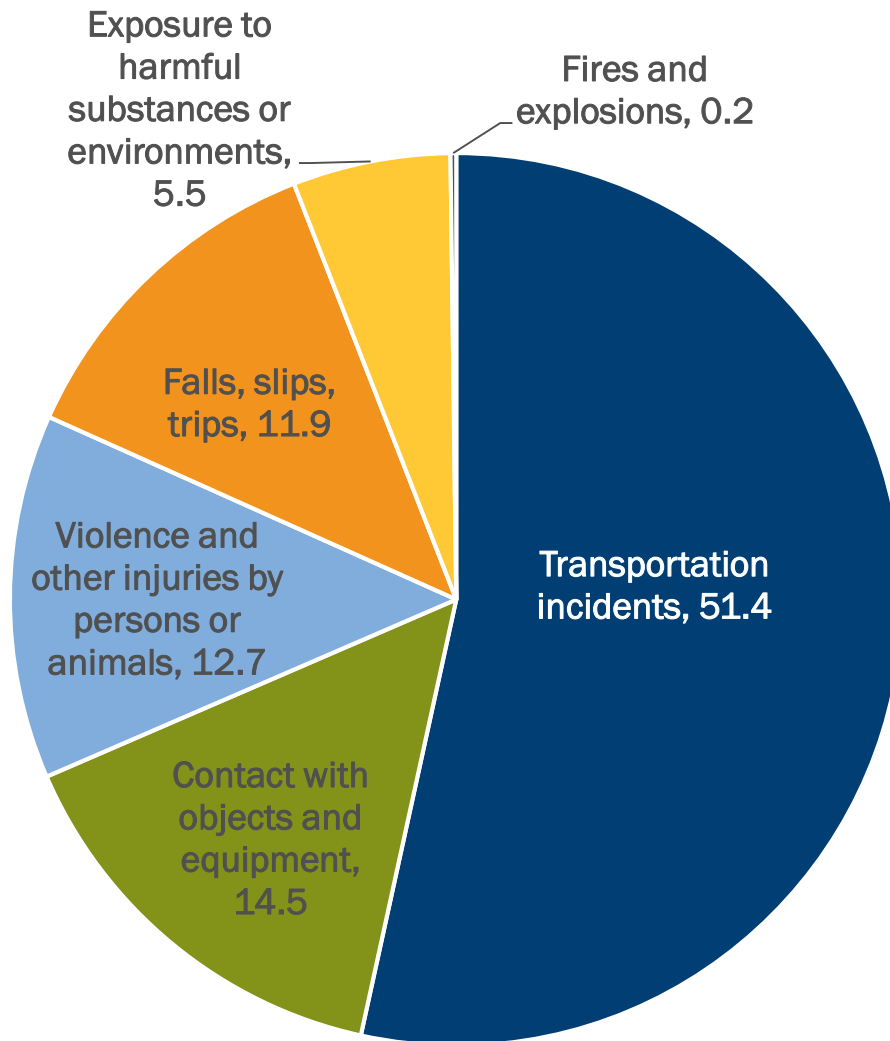


**Figure 3.1 - Number and rate (per 100,000 FTE) of fatal work-related injuries in Montana and U.S., 2004-2014**



Source: BLS Census of Fatal Occupational Injuries (CFOI)

**Figure 3.2 – Percentage of fatal work-related injuries by event or exposure in Montana, 2004-2014.**



**Fatalities by Industry**  
**(2004-14)**

- Agriculture, forestry, fishing, and hunting (33.6%)
- Trade, transportation, and utilities (20.2%)
- Construction (12.3%)

# Industry-Specific Data & Trends: 2014



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# Top Industries & Occupations by Employment in Montana, 2014

Industry	Percent of employment
Education and health services	20.8
Wholesale and retail trade	15.4
Leisure and hospitality	11.9
Construction	9.0
Professional and business services	8.4
Agriculture	5.7
Financial activities	5.6

Occupation	Percent of employment
Service	19.6
Professional and related occupations	19.6
Management, business, and finance	16.7
Office and administrative support	11.3
Sales and related occupations	10.6
Construction and extraction	7.1
Transportation and material moving	6.0



## Incidence Rates of non-fatal injuries per 100 full-time employees by industry (private industry), 2004-2015

- For the past 11 years, how many years has each industry had a non-fatal injury incidence rate above the overall rate for private industry in Montana?

Construction (11 years)

Manufacturing (11)

Healthcare and social assistance (11)

Agriculture, forestry, fishing, and hunting (10)

Retail trade (8)

Transportation and warehousing (7)

Arts, entertainment, recreation (7)

Accommodation and food services (7)

Wholesale Trade (4)

Utilities (3)



# Construction, 2014

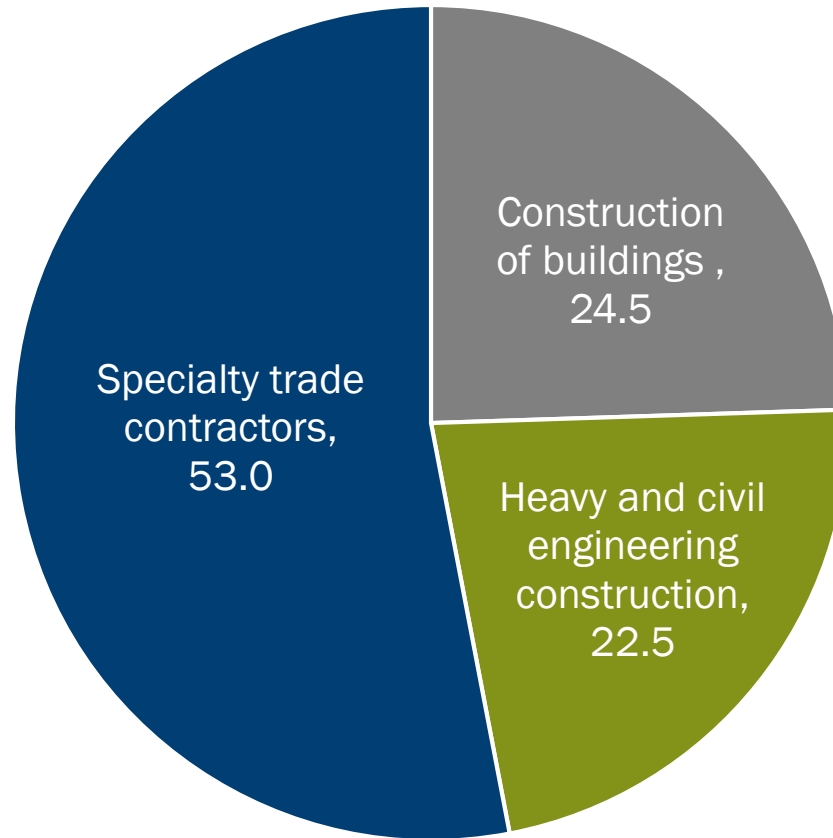


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## Total Employees in Construction (private industry): 24,946

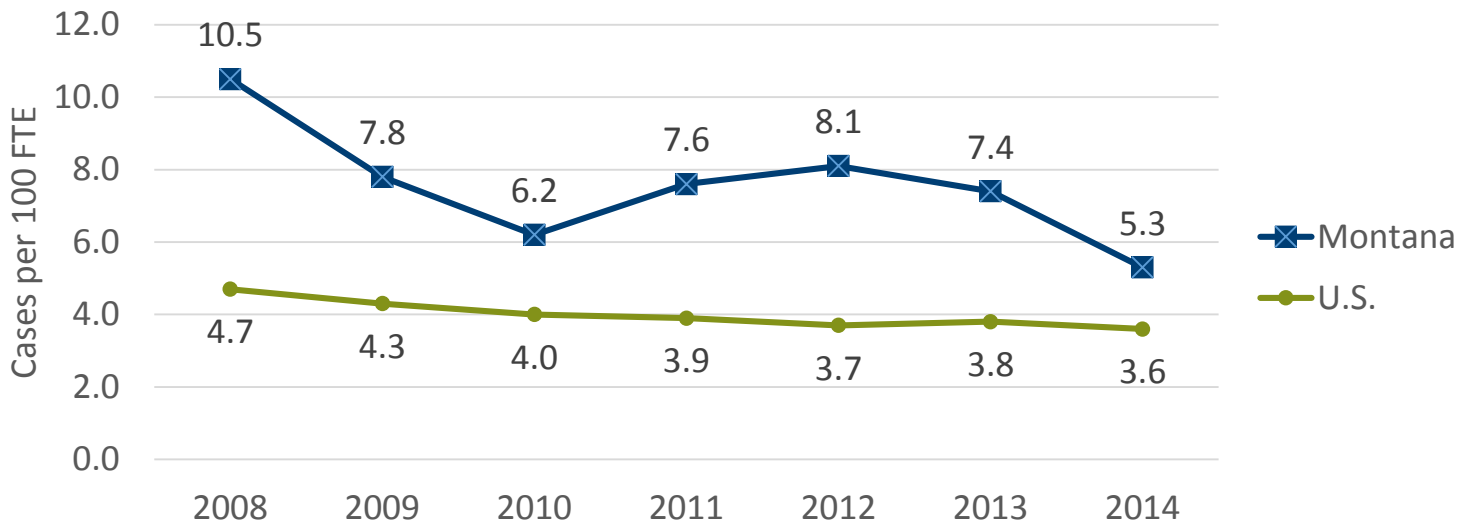
- Total establishments: 5,502

Construction Employees by Subsector (%)

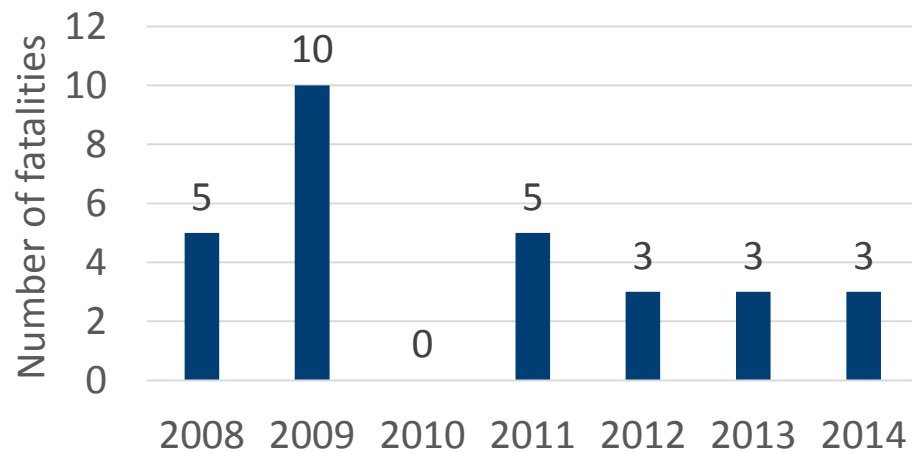


Source: BLS Quarterly Census of Employment and Wages

## Non-fatal injuries and illnesses, 2008-2014



## Work-related fatalities, 2008-2014



Source: BLS Survey of Occupational Injuries and Illnesses (SOII);  
BLS Census of Fatal Occupational Injuries (CFOI)

# MT Workers' Compensation Claims Data: “Top 5”

**Injury Descriptions (Part, Cause, Nature),  
Industries, and Occupations**



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# Total Reported Claims in Construction = 2,048

Top 5 “Part of Body”	% of Total Claims
Finger(s)	13%
Lower Back Area	12%
Eye(s)	9%
Hand	8%
Knee	8%

Top 5 “Cause of Injury”	% of Total Claims
Twisting	9%
Lifting	8%
Falling or Flying Object	8%
Foreign Matter in Eyes	7%
Struck or Injured (NOC)	7%

Top 5 “Nature of Injury”	% of Total Claims
Sprain or Tear	26%
Laceration	26%
Contusion	13%
Strain or Tear	11%
Fracture	6%

# Total Reported Claims in Construction = 2,048

## Industry Subsectors - % of Total Claims

Top 5 Industries	% of Total Claims
Residential Remodelers	17%
Plumbing, Heating, and AC Contractors	16%
Framing Contractors	8%
Electric Contractors	6%
All Other Specialty Trade Contractors	6%

## Occupations - % of Total Claims

Top 5 Occupations	% of Total Claims
Carpentry Construction of Residential Dwellings (not exceeding 3 stories tall)	17%
Plumbing (NOC and Drivers)	9%
Carpentry (NOC)	9%
Electrical Wiring (within buildings and Drivers)	5%
Heating, Ventilation, AC, and Refrigeration Systems – Installation, Service and Repair	5%



# Manufacturing, 2014

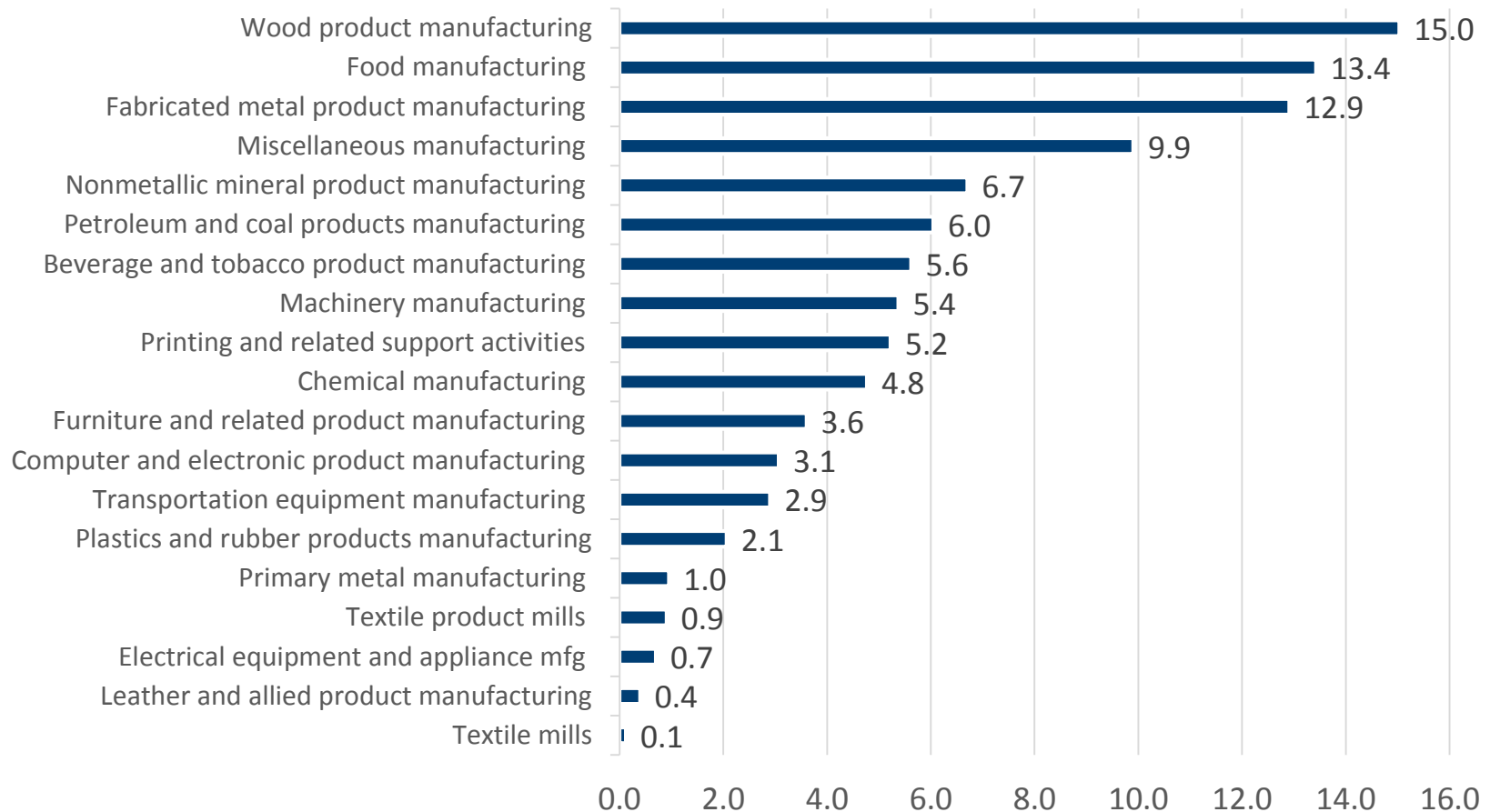


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# Total Employees in Manufacturing (private industry): 18,879

- Total Establishments: 1,402

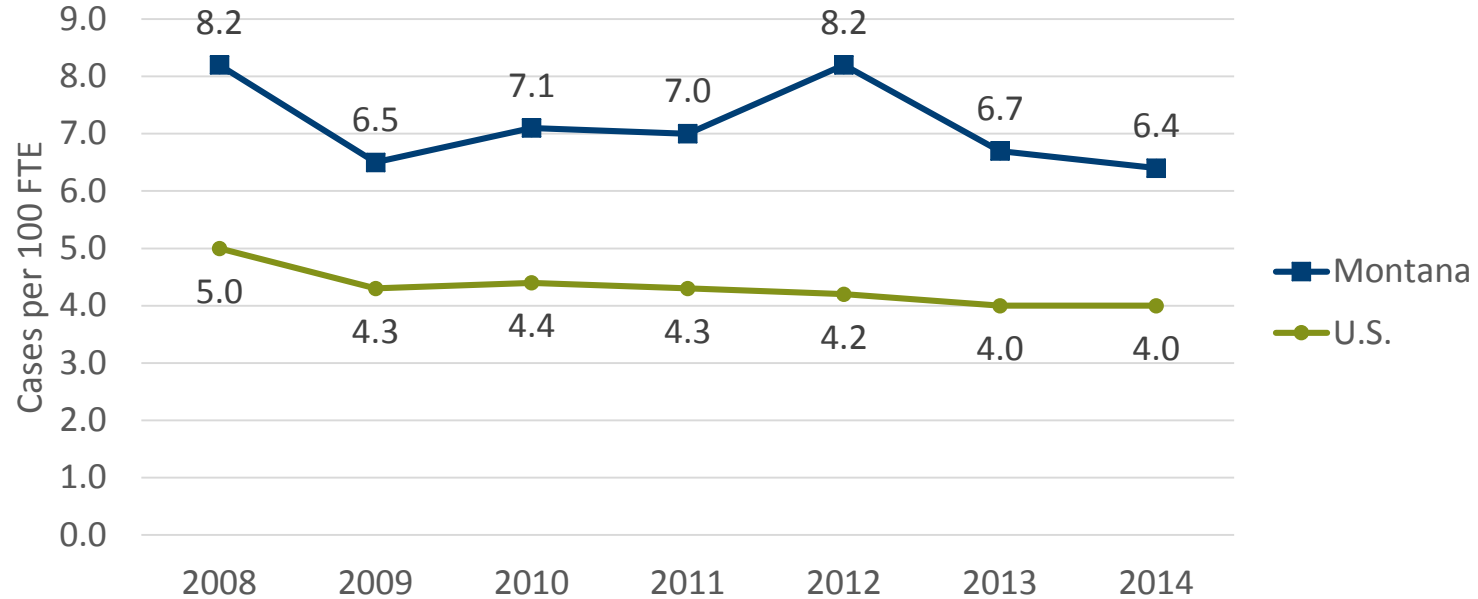
## Manufacturing Employees by Subsector (%)



Source: BLS Quarterly Census of Employment and Wages



## Non-fatal injuries and illnesses, 2008-2014



## Work-related fatalities, 2008-2014

0 fatalities 2008-2013.  
Two fatalities in 2014.

# MT Workers' Compensation Claims Data: “Top 5”

**Injury Descriptions (Part, Cause, Nature),  
Industries, and Occupations**



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# Total Reported Claims in Manufacturing = 968

Top 5 “Part of Body”	% of Total Claims
Finger(s)	13%
Lower Back Area	12%
Hand	8%
Shoulder(s)	6%
Knee	5%

Top 5 “Cause of Injury”	% of Total Claims
Lifting	11%
Twisting	8%
On Same Level	7%
Falling or Flying Object	6%
Pushing or Pulling	5%

Top 5 “Nature of Injury”	% of Total Claims
Sprain or Tear	23%
Strain or Tear	19%
Contusion	17%
Laceration	14%
All other specific injuries (NOC)	5%

# Total Reported Claims in Manufacturing = 968

## Industry Subsectors - % of Total Claims

Top 5 Industries	% of Total Claims
Sawmills	16%
Bottled Water Manufacturing	6%
Other Apparel Knitting Mills	5%
Beet Sugar Manufacturing	5%
Commercial Bakeries	5%

## Occupations - % of Total Claims

Top 5 Occupations	% of Total Claims
Sawmill	9%
Planing or Molding Mill	5%
Sugar Manufacturing or Refining From Sugar Cane or Beets	5%
Bottling (NOC and Route Supervisors, Bottling)	5%
Bakery Salespersons and Drivers	4%

# Mining, Quarrying, Oil & Gas 2014

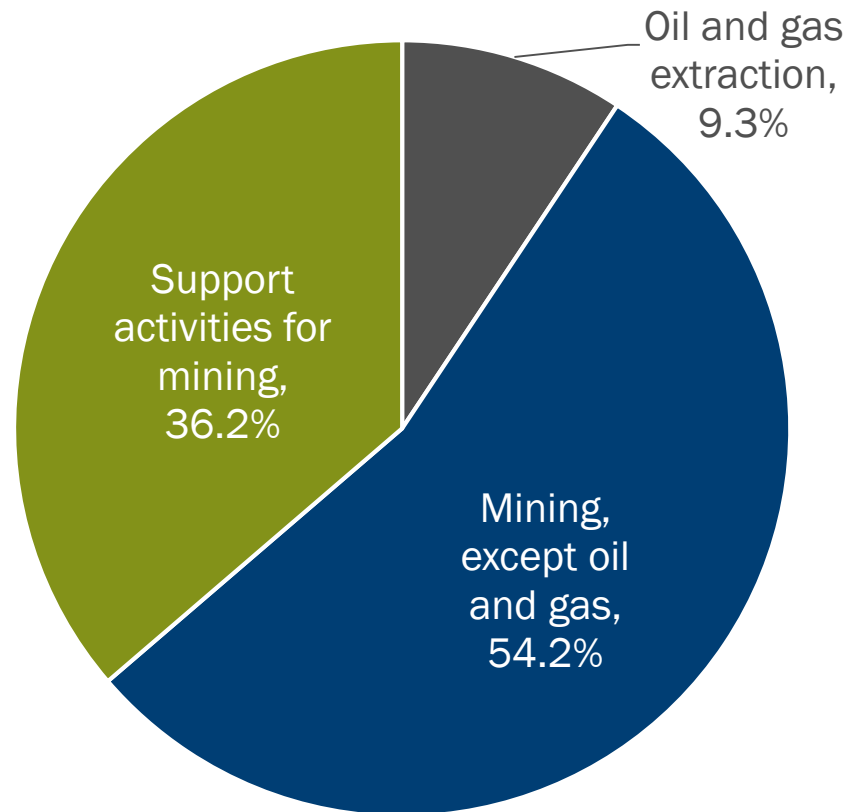


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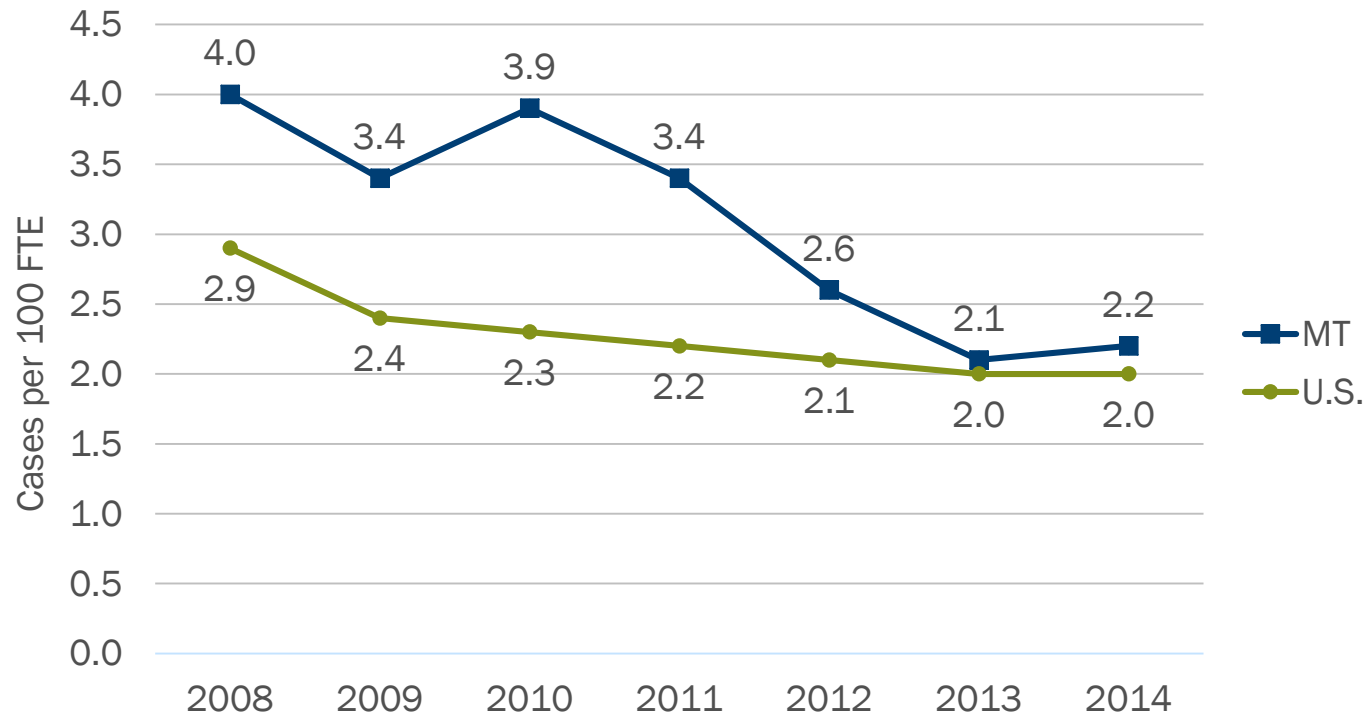
## Total Employees in Mining, Quarrying, & Oil & Gas Extraction: 8,564

- Total Establishments: 589

Mining, Quarrying, and Oil & Gas Employees by Subsector (%)



## Non-fatal injuries and illnesses, 2008-2014



## Work-related fatalities, 2008-2014

3 fatalities in 2008.  
2 fatalities 2013-2014.

# MT Workers' Compensation Claims Data: “Top 5”

**Injury Descriptions (Part, Cause, Nature),  
Industries, and Occupations**



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# Total Reported Claims in Mining, Quarrying, and Oil & Gas = 552

Top 5 “Part of Body”	% of Total Claims
Lower Back Area	13%
Finger(s)	11%
Knee	8%
Shoulder(s)	7%
Eye(s)	7%

Top 5 “Cause of Injury”	% of Total Claims
Twisting	13%
Falling or Flying Object	9%
On Same Level	7%
Lifting	6%
Pushing or Pulling	6%

Top 5 “Nature of Injury”	% of Total Claims
Sprain or Tear	23%
Strain or Tear	20%
Contusion	16%
Laceration	9%
Fracture	7%

# Total Reported Claims in Mining, Quarrying, Oil & Gas = 552

## Industry Subsectors - % of Total Claims

Top 5 Industries	% of Total Claims
All Other Metal Ore Mining	27%
Support Activities for Oil and Gas Operations	21%
Bituminous Coal and Lignite Surface Mining	16%
Crude Petroleum and Natural Gas Extraction	9%
Other Crushed and Broken Stone Mining and Quarrying	7%

## Occupations - % of Total Claims

Top 5 Occupations	% of Total Claims
Mining (NOC – Not Coal/Underground – and Drivers)	27%
Coal Mining (Surface and Drivers)	14%
Oil or Gas Lease Work (NOC-By Contractor and Drivers)	11%
Oil or Gas Well (Drilling or Redrilling and Drivers)	5%
Oil or Gas Lease Operator (All Operations and Drivers)	5%

# Utilities, 2014

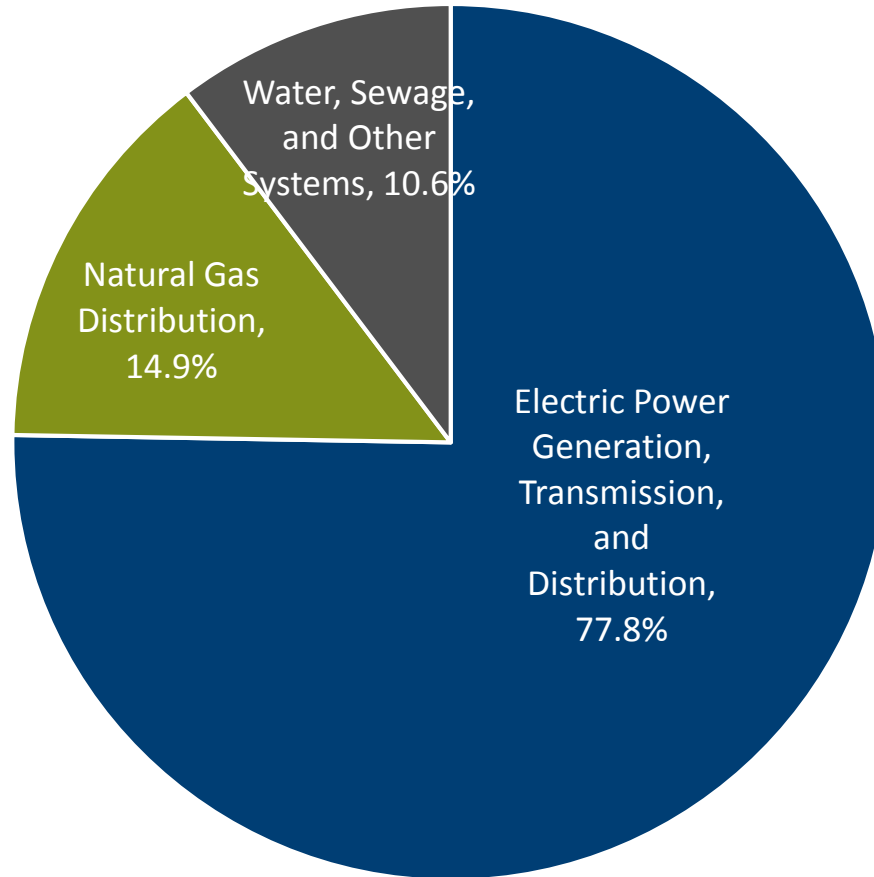


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## Total Employees in Utilities (private industry): 3,157

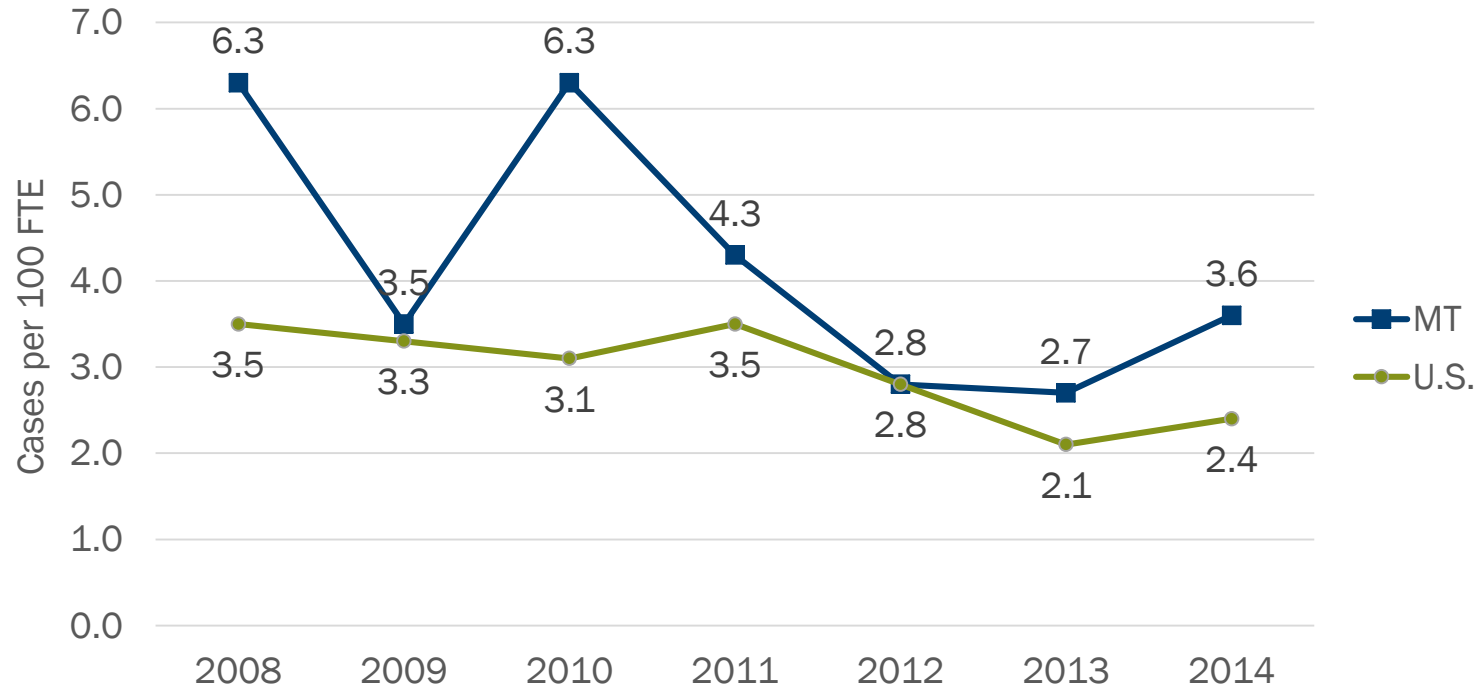
- Total Establishments: 256

Utilities Employees by Subsector (%)



Source: BLS Quarterly Census of Employment and Wages

## Non-fatal injuries and illnesses, 2008-2014



Source: BLS Survey of Occupational Injuries and Illnesses (SOII);  
BLS Census of Fatal Occupational Injuries (CFOI)

# MT Workers' Compensation Claims Data: “Top 5”

**Injury Descriptions (Part, Cause, Nature),  
Industries, and Occupations**



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# Total Reported Claims in Utilities = 193

Top 5 “Part of Body”	% of Total Claims
Finger(s)	9%
Knee	9%
Eye(s)	7%
Shoulder(s)	7%
Lower Back Area	7%

Top 5 “Cause of Injury”	% of Total Claims
Fall, Slip or Trip (NOC)	8%
On Ice or Snow	8%
Falling or Flying Object	6%
On Same Level	5%
Object Being Lifted or Handled	5%
Hand Tool, Utensil; not powered	5%
From Different Level (elevation)	5%

Top 5 “Nature of Injury”	% of Total Claims
Strain or Tear	32%
Contusion	18%
Laceration	13%
Sprain or Tear	11%
Puncture	6%



# Total Reported Claims in Utilities = 193

## Industry Subsectors - % of Total Claims

Top 5 Industries	% of Total Claims
Electric Power Distribution	35%
Utilities	30%
Other Electric Power Generation	23%
Water Supply and Irrigation Systems	9%
Natural Gas Distribution	2%

## Occupations - % of Total Claims

Top 5 Occupations	% of Total Claims
Electric Light or Power Co. (NOC – all employees and drivers)	36%
Electric Light or Power Cooperative (REA Project Only-all employees and drivers)	19%
Electric Light or Power Line Construction and Drivers	9%
Irrigation Works Operation and Drivers	7%
Clerical Office Employees (NOC)	4%







# So, what's next?



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# MT Worker Health Reports

## Available:

- Assaults on Healthcare Workers in Montana
- Occupational Health Indicators: Montana, 2004-2014

## Upcoming:

- Newsletter: Occupational Health Topics (quarterly)
- Industry “Spotlight” pages
- Epidemiology Annual Report (2015 data)
- “The Big Four” Reports:
  - Construction
  - Manufacturing
  - Healthcare and social assistance
  - Agriculture, forestry, fishing & hunting



# Collaboration is key!



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# Thank you!

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Visit our program @  
[www.mtworkerhealth.com](http://www.mtworkerhealth.com)!



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